

EVALUATION
OF PARTICLE/HOLE PROPAGATORS
BY THE TSERKOVNIKOV'S METHOD

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S u m m a r y

By particle/hole propagator (f_t/g_t for short), we imply the statistically averaged product of particle's creation/annihilation operator by its conjugate partner separated from it by the time interval t . As f_t and g_t are intimately linked to transport coefficients, their form at finite residual interactions is an issue of the utmost physical import. In contrast to the previous studies, having heuristic character, we find the desired expressions for f_t and g_t from the appropriate dynamic equations by means of a method devised by Yu.A. Tserkovnikov to solve the chains of equations for two-time Green's functions. Friction coefficients of a slowly evolving nuclear shape associated with the propagators obtained in this way are compared with heuristic expressions.